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United States Patent [19][11] **Patent Number:** **5,918,014****Robinson**[45] **Date of Patent:** **Jun. 29, 1999**[54] **AUTOMATED COLLABORATIVE
FILTERING IN WORLD WIDE WEB
ADVERTISING**[75] **Inventor:** Gary B. Robinson, Ellsworth, Me.[73] **Assignee:** Athenlum, L.L.C., Cambridge, Mass.[21] **Appl. No.:** 08/774,180[22] **Filed:** Dec. 26, 1996**Related U.S. Application Data**[60] Provisional application No. 60/009,286, Dec. 27, 1995, and
provisional application No. 60/012,517, Feb. 29, 1996.[51] **Int. Cl.**⁶ **G06F 15/163; G06F 17/30;**
G06F 15/00[52] **U.S. Cl.** **395/200.49; 707/10; 706/12**[58] **Field of Search** **707/3, 10; 395/200.47,**
395/200.48, 200.49; 706/12[56] **References Cited****U.S. PATENT DOCUMENTS**

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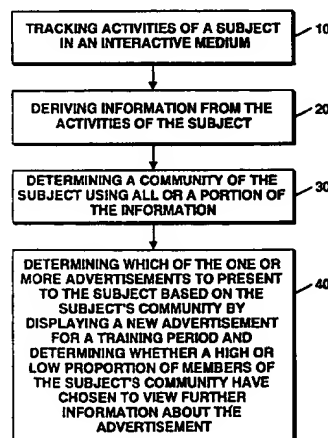
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On the World Wide Web, and other interactive media, it is possible to show different ads to different people who are simultaneously viewing the same content. This invention is based on the fact that people who have shown a tendency for similar likes and dislikes in the past will show a tendency for such similarities in the future. Those people who strongly display such similarities with respect to a particular person ("the subject") are referred to as that person's "community." If the members of a subject's community tend to click on a particular Web ad, then it is likely that the subject will also tend to click on that ad. This invention combines techniques for: determining the subject's community, and determining which ads to show based on characteristics of the subject's community. The information used to determine whether a given individual should be in the subject's community is gleaned from the individual's activities in the interactive medium. Means are provided to track a consumer's activities so all the information he generates can be tied together in the database, e.g. by means of "cookies;" or by software running on the consumer's computer, such as an in-line plug-in, a screensaver working in conjunction with the Web browser, or the Web browser itself. A measure of similarity between individuals is generated. The individuals with the greatest calculated similarity become the subject's community; e.g. clusters are formed of groups of very similar consumers. Ads are presented to the subject based on his community, optionally selected based on demographics associated with the community.

25 Claims, 1 Drawing Sheet

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